



Section 4: Certification/License/Assessment Overviews

Section 4 includes overviews of all certifications, licenses, and assessments approved by the Virginia Board of Education as part of the requirements for student-selected verified credit and certain diploma seals.

You will find all the certifications, licenses, and assessments listed alphabetically. Each overview supplies

- title and brief description
- how to earn it
- provider
- preparatory courses or course sequence(s).

Students who complete some CTE courses or course sequences may take the associated NOCTI (National Occupational Competency Testing Institute) assessment to fulfill requirements for a student-selected verified credit.

If you need more information about student-selected verified credit, see Section 5.

If you need more information about the Career and Technical Education Seal, see Section 6.

If you need more information about the Advanced Mathematics and Technology Seal, see Section 7.

Section 4: Certification/License/Assessment Overviews

Note: Information Technology certifications may be designated as follows:

*Considered an entry-level certification

**Considered a mid-level certification; may require significant curriculum mapping

***Considered an advanced-level certification; will need to be mapped to curriculum at the academy level

Title/Description	How To Earn It	Provider	Preparatory Courses
A+ Certification* Certification of competency of entry-level computer service technicians. This is a popular first certification, especially for people who want to enter the Information Technology (IT) job market.	Pass the following tests: <ul style="list-style-type: none"> A+ Operating System Technologies examination A+ Core Hardware Service Technician examination 	CompTIA	Choose one of the following: <ul style="list-style-type: none"> Computer Network Software Operations BUS6650 Advanced Computer Network Software Operations BUS6651 Computer Systems Technology TDI8622/8623/8624 Electronics Systems I DTE8416/8417 Electronics Systems II DTE8412 Information Technology Fundamentals BUS6670
ACCESS Certification of knowledge and skill in culinary arts	Pass a written exam focusing on application of concepts and tasks performed by chefs and cooks (either food/meal or pastry specialty).	American Culinary Federation, Inc. (ACF)	Choose one of the following: <ul style="list-style-type: none"> Culinary Arts TDI8521/8522/8523 Culinary Arts II FCS8276
Adobe Certified Expert* Certification of a candidate who has passed an Adobe Product Proficiency Exam for a specific Adobe software product. The certified user is considered to be an expert-level user of the software product.	Pass a 1-2 hour product proficiency exam on desired Adobe software product. Exams are computer-delivered, closed-book tests consisting of 60-90 multiple-choice questions. Examples of exams: Adobe Acrobat 5.0, Adobe After Effects 4.1, Adobe FrameMaker 7.0, Adobe GoLive 6.0, Adobe Illustrator 10.0, Adobe InDesign 2.0, Adobe Photoshop 6.0, Adobe Premiere 6.0, Adobe LiveMotion 1.0, Adobe PageMaker 7.0	Adobe Systems, Incorporated	Choose one of the following: <ul style="list-style-type: none"> Desktop/Multimedia Presentations BUS6630 Advanced Desktop/Multimedia Presentations BUS6631 Graphic Imaging Technology TDI8660/8661/8662
Advanced Concepts of Business and Marketing Certificate Certification awarded for advanced levels of competency, based on business-derived standards, in core business concepts and skills (marketing emphasis) and knowledge of specific business/marketing functions (e.g., selling or industries such as retail or hospitality)	Pass a knowledge-based exam consisting of 125 multiple-choice test items. Test includes items from the following areas: business administration, communication, distribution, economics, financing, marketing-information management, pricing, product management, professional development, promotion, and selling.	ASK Institute (DECA/MarkED)	Choose one of the following: <ul style="list-style-type: none"> Advanced Marketing MKT8130/8131 Advanced Fashion Marketing MKT8145/8146

Title/Description	How To Earn It	Provider	Preparatory Courses
Advertising Design Assessment Occupational competency assessment of skills and knowledge covered for an instruction program focusing on the advertising design job market sector	Pass the NOCTI knowledge-based exam (2019) consisting of 193 test items. Test includes color, reproduction, typography, tools and equipment, printing surfaces, drawing/illustration, production, computer literacy, photography, communication, skills, and design.	National Occupational Competency Testing Institute (NOCTI)	Advertising Design TDI8570/8571/8572
Agriculture Mechanics Assessment An occupational competency assessment of skills and knowledge covered in a typical Agricultural Mechanics course	Pass the NOCTI knowledge-based exam (1002) consisting of 175 test items. Test includes orientation and safety, agricultural mechanic skills, agricultural power and machinery, agricultural electrical power and processing, agricultural structures, and soil and water treatment.	National Occupational Competency Testing Institute (NOCTI)	Choose one of the following: <ul style="list-style-type: none"> Agricultural Power and Equipment ANR8016 Agricultural Mechanization Sales and Service ANR8018
Air Conditioning Certification The basis for all other certifications involving the vapor compression refrigeration system. Today's systems use new refrigerants and oils compared to units built just a few years ago. Any technician responsible for diagnosis and repair must possess a strong background in refrigeration systems.	Pass a written exam focusing on the following: theory of heat, temperature and pressure; physical states of matter and change of state; refrigeration and refrigerants; refrigerant and oil management; refrigeration applied to air conditioning, leak detection, tubing and piping practices, system evacuation, system charging, tool usage and calibration, equipment maintenance, and safety.	HVAC Excellence	Heating, Ventilation, Air Conditioning, and Refrigeration TDI8503/8504/8505
Air Cooled Gas Engine Assessment Occupational competency assessment of skills and knowledge covered in a typical Small Engine Repair course	Pass the NOCTI knowledge-based exam (2068) consisting of 200 test items. Test includes fuel system, lubricating system and carburetion, compression, ignition, governor, engine disassembly, engine assembly, maintenance, engine technology, failure, and starters.	National Occupational Competency Testing Institute (NOCTI)	Choose one of the following: <ul style="list-style-type: none"> Small Engine Repair ANR8021/8082 Small Engine Repair TDI8725/8726/8727
Audio-Visual Communications Assessment Occupational competency assessment of skills and knowledge covered in an introductory course in audiovisual production and communication	Pass the NOCTI knowledge-based exam (2005) consisting of 196 test items. Test includes photography, computer-based technology, film/video production, audio production, presentation technology, creative development, visual design, project management, equipment maintenance and troubleshooting, network technology, and related information.	National Occupational Competency Testing Institute (NOCTI)	Television Production TDI8688/8689/8690
AutoCAD 2000 Hands-on measure of ability and knowledge to design in two dimensions, using the AutoCAD 2000 software program	Pass an online knowledge and software use assessment that covers getting started/organization, creating objects, drawing, editing, layers, color and line types, text, dimensioning, blocks, attributes and Xrefs, printing and plotting, and utilities.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> Technical Drawing and Design DTE8435/8494 Engineering Drawing and Design DTE8436/8493 Architectural Drawing and Design DTE8437/8492 Drafting TDI8530/8531/8532

Title/Description	How To Earn It	Provider	Preparatory Courses
Automotive Technician Certification of skill in automobile service and repair	Pass at least one of eight specialty exams in engine repair, automatic transmission and transaxle, manual drive train and axles, suspension and steering, brakes, electrical and electronic systems, heating and air conditioning, or engine performance. Verified credit will be awarded for the passing of each certification specialty examination (up to a maximum of four).	National Institute for Automotive Service Excellence (ASE)	Automotive Service Technology—Certified TDI8506/8507/8508
BICSI Registered Installer, Level 1 Cabling certification based on <i>BICSI Telecommunications Cabling Installation Manual</i> , 2 nd ed.	<ul style="list-style-type: none"> • Pass a written 2-hour exam made up of 85 multiple choice or true/false questions. The Level 1 passing score is 60%. • Pass a hands-on test, successfully completing two Level 1 Installer tasks to industry standards. This portion of the exam takes approximately 20 minutes per task. 	BICSI (International Telecommunications Association)	Electricity and Cabling TDI8533.8534.8535
Brainbench Adobe Illustrator Certification* Certification of knowledge and skill sets required for using the software tool Adobe Illustrator 8.0	Pass an assessment of competencies required to use Adobe Illustrator 8.0 as a software tool. Designed for experienced users, this test includes the following topics: color images, image basics, printing, text, and general knowledge.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631 • Graphic Imaging Technology TDI8660/8661
Brainbench Adobe PageMaker Certification* Certification of knowledge and skill sets required for using the software tool Adobe PageMaker 6.5	Pass an assessment of specific competencies required to use Adobe PageMaker 6.5 as a software tool. Designed for experienced users, this test includes the following topics: advanced features, color, document layout, graphics, linked files, outputting/exporting, portability, typography, and user interface.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631 • Graphic Imaging Technology TDI8660/8661/8662
Brainbench Adobe Photoshop Certification* Certification of knowledge and skill sets required for using the software program Adobe Photoshop. Various assessments are available, depending on software version (e.g., 5.5, 6.0, 7.0)	Pass an assessment of specific competencies required to use Adobe Photoshop software. Designed for experienced users, this test includes the following topics if using Version 7.0 assessment: color, drawing and editing, efficiency, image control, layers, masks and channels, painting and retouching, saving and exporting, text, and the work area.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631 • Graphic Imaging Technology TDI8660/8661/8662

Title/Description	How To Earn It	Provider	Preparatory Courses
Brainbench Certified Internet Professional: Page Layout Certification** Measure of skills in the specific area of Web design. The skills used in page layout for the Web include navigation, layout, use of links, windows, forms, and short cuts. Certification is targeted toward individuals who design the page structures that ensure the ease of navigation and organization of information of professional Web sites.	Pass the following three examinations administered online by Brainbench: <ul style="list-style-type: none"> • Web Design Concepts • An application-specific exam (e.g., Brainbench Dreamweaver exam), • An elective exam from a specific list of options such as Fireworks, Flash, Director, FrontPage 2000, HomeSite, CorelDRAW, or Photoshop 	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631
Brainbench CorelDRAW Certification* A certification of knowledge and skill sets required in using the software program, CorelDRAW 9.0.	Pass an assessment of specific competencies required to use CorelDRAW 9.0 software. Designed for experienced users, this test includes the following topics: colors and palettes; creating objects; effects; file I/O; manipulating objects; preparing for Web, print, and pdf; special features; user interface; working with bitmaps; and working with text.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631 • Graphic Imaging Technology TDI8660/8661/8662
Brainbench Dreamweaver Certification* A certification of knowledge and skill sets required in using the software program, Dreamweaver. Various assessments are available, depending on software version (e.g., 3.0, 4.0, MX).	Pass an assessment of specific competencies required to use Dreamweaver software to develop Web sites. Designed for experienced users, this test includes the following topics if using Version 4.0: addition of interactivity, application environment, collaboration, customizing and extending, media, page authoring, page design, page management, and site management.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631 • Graphic Imaging Technology TDI8660/8661/8662
Brainbench Fireworks Certification* A certification of knowledge and skill sets required in using the software program Macromedia Fireworks to develop graphics for the Web. Various assessments are available depending on software version (e.g., 3, 4).	Pass an assessment of specific competencies required to use Macromedia Fireworks software to develop graphics for the Web. Designed for experienced users, this test includes the following topics if using Version 4: animation, behaviors, buttons, design environment, effects, general tools, layers and frames, masks, production techniques, raster, symbols and libraries, text, and vector.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631 • Graphic Imaging Technology TDI8660/8661/8662
Brainbench Flash Certification* A certification of knowledge and skill sets required in using the software program Flash to develop graphics presentations. Various assessments are available depending on software version (e.g., 4, 5, MX).	Pass an assessment of specific competencies required to use Flash software to develop graphics presentations. Designed for experienced users, this test includes the following topics if using Version 5: advanced actions, animation, buttons, movie management, objects, publishing and exporting, sound, and tools.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631 • Graphic Imaging Technology TDI8660/8661/8662

Title/Description	How To Earn It	Provider	Preparatory Courses
Brainbench HTML Certification* Measure of knowledge of coding Web pages using HTML 4.0. Designed for experienced coders, this certification has been endorsed by the International Association of Webmasters.	Pass one two-hour, closed-book, 120-question, multiple-choice examination that covers the following topics: browsers, components, forms, frames, images, links, structure, style sheets, and text.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631
Brainbench Java 2 Fundamentals Certification* Certification of knowledge and skill sets (fundamental level) required in using the Java 2 programming language in Web development applications.	Pass a test that measures basic knowledge of programming in Java 2. Designed for new programmers, this test covers the following topics: common packages, data manipulation, flow of control, Java basics, OO basics in Java, and Java fundamentals, runtime, and threads.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Advanced Programming BUS6641 • Advanced Database Design and Management BUS6661
Brainbench Java 2 Certification* Certification of knowledge and skill sets (experienced level) required in using the Java 2 programming language in Web development applications	Pass an assessment that tests for specific competencies required to use Java 2 programming language in Web development applications. Designed for experienced programmers, this test covers the following topics: applets, collections API, database programming, enterprise features, exceptions, fundamentals, graphics programming, input method framework, internationalization, Java Beans, Java IDL, JDBC, JFC, language fundamentals, networking, programming, reference objects, RMI, security, standard packages, and threads.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Advanced Programming BUS6641 • Advanced Database Design and Management BUS6661
Brainbench JavaScript Certification* Certification of knowledge and skill sets required in using JavaScript in Web development applications	Pass an assessment that measures knowledge of programming using JavaScript 1.2. Designed for experienced programmers, this test covers the following topics: components, controlling Windows, documents, events and event handlers, functions, integration with other technologies, objects, operators/variables, statements, working with forms, and working with frames.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631
Brainbench Macromedia FreeHand Certification* Certification of knowledge and skill sets required in using the vector-drawing software tool Macromedia FreeHand 9	Pass an assessment that tests for specific competencies required to use Macromedia FreeHand 9 as a vector-drawing software tool. Designed for experienced users, this test includes the following topics: document window; organization; drawing; perspective; modifying shape and position; modifying objects; modifying attributes; color, strokes, and fills; symbols and instances; layers; text; templates; printing; and working with other applications.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631 • Graphic Imaging Technology TDI8660/8661/8662

Title/Description	How To Earn It	Provider	Preparatory Courses
Brainbench MS FrontPage 2000 Certification* Certification of knowledge and skill sets required in using the Web development software tool MS FrontPage 2000	Pass an assessment that tests for specific competencies required to use MS Front Page 2000 as a Web-development software tool. Designed for experienced users, this test includes the following topics: creating and managing Webs; creating tables and forms; creating Web pages; FP/client compatibility; Front Page components; general knowledge; media; publishing Web sites; site analysis, design, and maintenance; templates, wizards, tasks, and frames; Web servers, server management, and server extensions; and Web technologies.	Brainbench	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631 • Graphic Imaging Technology TDI8660/8661/8662
Brainbench Quark Xpress Certification* Certification of knowledge of Quark Xpress 4--a leading electronic publishing software product used to create, design, and deliver high-impact publications in both print and electronic media.	Pass a two-hour, closed book, 120-question, multiple-choice exam. The exam covers the following topics: character formatting, color management, configuring and customizing, document management, graphics, miscellaneous, object placement, page layout, paragraph formatting, printing and output, text editing, and text/picture boxes.	Brainbench	Graphic Imaging Technology TDI8660/8661/8662
Cabinetmaking Assessment Occupational competency assessment of skills and knowledge covered in an instructional program in cabinetmaking	Pass the NOCTI knowledge-based exam (1014) consisting of 168 test items. Test includes: safety, power sawing, drill and drill press, jointer and planer, router and shaper, constructing joints, basic fastening, sanding and finishing, casework design and layout, cutting and shaping casework components, assembling and installing casework, finishing surfaces, transporting and installing casework, and wood lathe.	National Occupational Competency Testing Institute (NOCTI)	Cabinetmaking TDI8604/8605/8606
Carpentry Assessment Occupational competency assessment of skills and knowledge covered for an instructional program in carpentry	Pass the NOCTI knowledge-based exam (2015) consisting of 140 test items. Test includes hand tools, power tools, blueprints and specifications, building materials and fasteners, measuring and layout operations, foundation, forms and concrete, rough framing, exterior finish, interior finish, basic mathematics, and interior system installation.	National Occupational Competency Testing Institute (NOCTI)	Carpentry TDI8601/8602/8603
Carpentry, Level 1 Certification Certification of knowledge and skills defined as Level 1 competency in the carpentry trade area. The certification exam is based the NCCER <i>Contren Learning Series</i> standardized curriculum.	Pass an exam that covers the following: orientation to the trade; wood building materials, fasteners, and adhesives; hand and power tools; floor systems; wall and ceiling framing; roof framing, windows, and exterior doors.	National Center for Construction Education and Research (NCCER)	Choose one of the following: <ul style="list-style-type: none"> • Building Trades TDI8515/8516/8517 • Carpentry TDI8601/8602/8603

Title/Description	How To Earn It	Provider	Preparatory Courses
Certification for Legal Professionals (ALS) Entry-level certification as an accredited legal professional	Pass an exam with three components: 1) written communication; 2) office procedures and legal knowledge; and 3) ethics, human relations, and judgment.	The Association for Legal Professionals	<ul style="list-style-type: none"> Accounting BUS6320 or Advanced Accounting BUS6321 and Office Administration BUS6621 and Legal Systems Administration BUS6735
Certification in Convergent Network Technologies (CCNT)* Certification of knowledge of data convergence, computer telephony, and telecommunications	Pass the following six knowledge-based exams: Local Area Networks (LAN) <ul style="list-style-type: none"> Basic Telecommunications Basic Data Communications Computer-Telephony Integration (CTI) Essentials Voice Over IP Essentials Broadband Technologies 	ProsoftTraining	Choose one of the following: <ul style="list-style-type: none"> Advanced Computer Information Systems BUS6613 Computer Network Software Operations BUS6650 Advanced Computer Network Software Operations BUS6651
Certified Computer Service Technician (CST) Certification of skill in and knowledge of basic computer electronics as applied to computer operation, maintenance, and repair	Pass the written CST certification examination, demonstrating knowledge of basic electronics concepts and principles that form the foundation of all other industry specialty knowledge, skills, and abilities; basic computer hardware operations and problems; and general human/customer relations skills.	Electronics Technicians Association, International (ETA)	Choose one of the following: <ul style="list-style-type: none"> Computer Systems Technology TDI8622/8623/8624 Electronics Technology TDI8536/8537/8538
Certified Dental Assistant: Infection Control Examination (ICE) One of three assessments leading to completion of the Certified Dental Assistant credential (CDA)	Pass a knowledge-based exam consisting of 100 multiple-choice questions. The exam includes collection and recording of data, patient and dental health care work education, prevention of cross-contamination and transmission, maintaining aseptic conditions, selecting disinfection or sterilization, performing sterilization procedures, performing disinfection procedures, occupational safety.	Dental Assisting National Board, Inc.	Dental Assistant HMS8328/8329
Certified Dental Assistant: Radiation Health & Safety Examination (RHS) One of three assessments leading to complete the Certified Dental Assistant credential (CDA)	Pass a knowledge-based exam consisting of 100 multiple-choice questions. The exam includes the expose and evaluate (intraoral, extraoral), process, mount/label, radiation safety-patient, radiation safety-operator, storage and disposal, quality assurance.	Dental Assisting National Board, Inc.	Dental Assistant HMS8328/8329

Title/Description	How To Earn It	Provider	Preparatory Courses
Certified Electronics Technician Associate (CETA) The CETA Program is designed for entry-level electronics students, apprentices, or technicians with two years or fewer combined electronics training and/or work experience. It certifies a knowledge of basic electronics concepts and principles that form the foundation of all other industry specialty knowledge, skills, and abilities. This exam is the basic portion of the advanced journey-level certification exam covering basic electricity, electronics, math, AC & DC circuits, transistors, and basic troubleshooting skills.	This exam is the basic portion of the full credit journey-level certification exam. This multiple-choice exam covers basic electricity, electronics, math, AC & DC circuits, transistors, and basic troubleshooting skills. The Associate level exam is a two-hour exam, and the applicant must receive a score of 75% to pass.	Electronics Technicians Association, International (ETA)	Electronics Technology TDI8536/8537/8538 Electronics Systems I DTE8416/8417 Electronics Systems II DTE8412
Certified Fiber Optics Installer Certification for technicians capable of fabricating, installing, troubleshooting, and maintaining fiber optic cable infrastructure	Complete an instructional unit consisting of the "Certified Fiber Optics Installer" curriculum from The Association of Communications & Electronics Schools, International. Pass an examination based on the following areas: particle and wave theories, optical fiber basics, connectors and components, splicing and cabling installation, optical signal concepts, troubleshooting, and hands-on skills,, fiber optics connectorization, splicing & testing.	The Association of Communications & Electronics Schools, International	Electricity and Cabling TDI8533/8534/8535
Certified Hospitality Supervisor (CHS) Certification of superior administrative skills in the hospitality industry. Related curriculum from the American Hotel and Lodging Association (AH&LA) must be completed	<ul style="list-style-type: none"> • Pass an exam (made up of 125 multiple-choice questions) designed for entry-level supervisors just beginning their careers. • Complete the related course of study from the American Hotel and Lodging Association. • Secondary students can take certification exam after completing course work (and before graduation) before completing certification requirement of 90 days of on-the-job experience. 	American Hotel and Lodging Association (AH&LA)	Choose one of the following: <ul style="list-style-type: none"> • Hotel/Motel Marketing MKT8160/8161 • Advanced Hotel/Motel Marketing MKT8162/8163 • Hospitality Services II FCS8203

Title/Description	How To Earn It	Provider	Preparatory Courses
Certified Internet Webmaster Associate Certification* Certification of basic skills and knowledge that an Internet professional is expected to understand and use. This is the first step in the Certified Internet Webmaster (CIW) program.	Pass a CIW Foundations exam (1DO-410). The exam covers Internet fundamentals, Web page authoring fundamentals, and networking fundamentals. ProsoftTraining accepts the iNet+ exam from CompTIA as a substitute for the CIW Foundations exam.	ProsoftTraining	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop Multimedia Presentations BUS6631 • Computer Network Software Operations BUS6650 • Advanced Computer Network Software Operations BUS6651 • Programming BUS6640 • Advanced Programming BUS6641
Certified Internet Webmaster Professional* Second certification step in the Certified Internet Webmaster program of certifications. Indicates that an individual has achieved the Certified Internet Webmaster Associate certification and has passed one additional job-role related exam in one of the CIW certification tracks.	Pass the foundation exam for the CIW Associate certification. Pass one job-role related exam in one of the Certified Internet Webmaster (CIW) certification tracks.	ProsoftTraining	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop Multimedia Presentations BUS6631 • Computer Network Software Operations BUS6650 • Advanced Computer Network Software Operations BUS6651 • Programming BUS6640 • Advanced Programming BUS6641
Certified Novell Administrator (CNA)* Certification of skills and knowledge for individuals who handle the day-to-day administration of an installed Novell networking product. The CNA is the first step in the Novell certification program.	Pass the Novell exam 050-677, Foundations of Novell Networking. This exam covers topics such as directory services, security, Web services, LAN/WAN technologies, and client/server management.	Novell	<ul style="list-style-type: none"> • Computer Network Software Operations BUS6650 • Advanced Computer Network Software Operations BUS6651
Certified Satellite Dish Installer Certification of skill in and knowledge necessary to install earth station, TV receive-only satellite dishes for consumer, business, and government use	Pass a test that includes antenna theory, amplifiers, satellite components, reflectors, feeds, wiring and switching, cabling, installation, interfacing, MATV and SMATV systems, fiber optics, and troubleshooting.	Electronics Technicians Association, International (ETA)	Choose one of the following: <ul style="list-style-type: none"> • Electronics Technology TDI8536/8537/8538 • Electricity and Cabling TDI8533/8534/8535

Title/Description	How To Earn It	Provider	Preparatory Courses
Child Development Associate (CDA) Certification of skill and knowledge related to early childhood caregiver in the following programs: infant/toddler, preschool center, family childcare, or home visitor	<ul style="list-style-type: none"> • Complete 120 clock hours of formal child care education. Submit documents to be evaluated: a professional resource file, parent opinion questionnaires, and the CDA assessment observation instrument. • Participate in an oral interview conducted by a Council representative. • Pass a written exam concentrating on a safe, healthy learning environment; physical, intellectual, social, and emotional development of children; productive relationships with families; effective program operation; commitment to professionalism; observation and recording of children's behavior; and principles of child development and learning. • Be at least 18 years of age. 	Council for Professional Recognition	Early Childhood Education FCS8285/8286
Cisco CCNA Academy Certificate (CCNA: 1) Certificate of successful completion of the CCNA 1: Networking Basics course of the CISCO Network Academy Program leading to full certification, Cisco Certified Network Associate (CCNA)	Pass an online assessment of competency in the following areas: introduction to networking, networking fundamentals, networking media, cable testing, cabling LANs and WANs, Ethernet fundamentals, Ethernet technologies, Ethernet switching, TCP/IP Protocol Suite, IP addressing, routing fundamentals and subnets, and TCP/IP transport and application layer.	Cisco Systems	Computer Networking Hardware Operations I TDI8542
Cisco CCNA Academy Certificate (CCNA: 2) A certificate of successful completion of the CCNA 2: Router and Routing Basics course of the CISCO Network Academy Program leading to full certification, Cisco Certified Network Associate (CCNA)	Pass an online assessment of competency in the following areas: WANs and routers, introduction to routers, configuring a router, learning about other devices, managing Cisco IOS software, routing and routing protocols, TCP/IP Suite error and control messages, basic router troubleshooting, intermediate TCP/IP, and access control lists (ACLs).	Cisco Systems	Computer Networking Hardware Operations II TDI8543
Cisco CCNA Academy Certificate (CCNA: 3) A certificate of successful completion of the CCNA 3: Switching Basics and Intermediate Routing course of the CISCO Network Academy Program leading to full certification, Cisco Certified Network Associate (CCNA)	Pass an online assessment that indicates competency in the following areas: introduction to classless routing, single-area OSPF, EIGRP, switching concepts, switches, switch configuration, spanning tree protocol, virtual LANs, and virtual trunking protocol.	Cisco Systems	Computer Networking Hardware Operations III TDI8544
Cisco CCNA Academy Certificate (CCNA: 4) A certificate of successful completion of the CCNA 4: WAN Technologies course of the CISCO Network Academy Program leading to full certification, Cisco Certified Network Associate (CCNA)	Pass an online assessment that indicates competency in the following areas: scaling IP addresses, WAN technologies, PPP, ISDN and DDR, frame relay, introduction to network administration, optical networking fundamentals.	Cisco Systems	Computer Networking Hardware Operations IV TDI8545

Title/Description	How To Earn It	Provider	Preparatory Courses
Cisco Certified Networking Associate (CCNA) Entry-level certification for workers who install, configure, and operate simple-routed LAN, routed WAN, and switched LAN, and ATM LANE networks that use Cisco routers and switches	Complete the following courses as a part of the CISCO Network Academy Program: CCNA 1: Networking Basics, CCNA 2: Router, CCNA 3: Switching, CCNA 4: WAN Technologies. Pass one CISCO certification exam, CCNA Exam 640-507.	Cisco Systems	Computer Networking Hardware Operations TDI8542/8543/8544/8545
Clothing and Textiles Management and Production Assessment Occupational competency assessment of skills and knowledge related to basic fashion design	Pass the NOCTI knowledge-based exam (1018) consisting of 156 test items. Test includes construction, alterations, textiles, design and color, mathematics, pattern making, manufacturing, sewing machine and fasteners.	National Occupational Competency Testing Institute (NOCTI)	Fashion Design Occupations FCS8281
Collision Repair and Refinishing Technician (ASE) Certification of automotive body and accessory repair technicians who meet ASE standards in automotive damage repair services.	Pass one of four tests covering structural analysis and damage repair, nonstructural analysis and damage repair, mechanical and electrical component repair, and painting and refinishing. Present proof of two years of relevant work experience. Three full years of training, either in automobile/truck/school bus repair or in collision repair, refinishing, or damage estimating may be substituted for one year of work experience.	National Institute for Automotive Service Excellence (ASE)	Automotive Body Technology—Certified TDI8676/8677/8678
Commercial Air Conditioning Certification Certification that addresses unique issues involved in the service and maintenance of commercial air conditioning systems. Commercial air conditioning technicians are faced with a variety of equipment and systems. All A/C equipment has certain components and functions that are common to all refrigeration and A/C devices; however, commercial buildings may experience high occupancy and contain a variety of equipment leading to indoor air quality (IAQ) concerns.	Pass a written exam focusing on the following: commercial evaporators, commercial condensing units, head pressure controls, charging commercial systems, air distribution, fresh air intake and exchange, filtration (HEPA filters, electronic air filters, activated charcoal air purifiers), generators, humidity control, control of indoor contamination, and duct cleaning.	HVAC Excellence	Heating, Ventilation, Air Conditioning, and Refrigeration TDI 8503/8504/8505
Commercial Foods Assessment Occupational competency assessment of skills and knowledge related to commercial foods operations	Pass the NOCTI knowledge-based exam (2020) consisting of 182 test items. Test includes food service overview, sanitation, safety, equipment, production techniques, recipes, purchasing and management skills, menu planning and service.	National Occupational Competency Testing Institute (NOCTI)	Choose one of the following: <ul style="list-style-type: none"> • Culinary Arts II FCS8276 • Culinary Arts TDI8521/8522/8523

Title/Description	How To Earn It	Provider	Preparatory Courses
Commercial Refrigeration Certification Certification for technicians servicing or maintaining commercial or industrial refrigeration systems. The commercial refrigeration technician is faced with a variety of equipment and an equal variety of trouble-shooting and service situations. Electrical and Air Conditioning Certifications are prerequisite to the Commercial Refrigeration Exam.	Pass a written exam focusing on the following: refrigeration components, commercial evaporators, commercial condensing units (head pressure controls), charging commercial systems, refrigerant controls, ice maker controls, defrost timers, pressure regulating valves, grocery (reach-in) cabinets, walk-in cabinets, display cases, frozen food storage, dispensing freezers, and industrial applications.	HVAC Excellence	Heating, Ventilation, Air Conditioning, and Refrigeration TDI 8503/8504/8505
Construction Electricity Assessment Occupational competency assessment of skills and knowledge covered in an instructional program in construction electricity	Pass the NOCTI knowledge-based exam (1024) consisting of 186 test items. Test includes: safety, tools, and equipment, NEC/blueprints/planning/layout, electronics, alternating current (basic theory, circuits, three-phase), transformers, AC motors and starters, branch circuits, wiring methods, lighting, heating and air conditioning and low voltage.	National Occupational Competency Testing Institute (NOCTI)	Electricity and Cabling TDI8533/8534/8535
Construction Fundamentals Certification Certification of knowledge and skills defined as <i>construction fundamentals</i> for all building and construction trade areas. The certification exam will be based upon the NCCER <i>Contran Learning Series</i> standardized curriculum.	Pass an exam that covers the following: basic safety, introduction to construction math, introduction to hand tools, introduction to power tools, introduction to blueprints, and basic rigging.	National Center for Construction Education & Research (NCCER)	Choose one of the following: <ul style="list-style-type: none"> • Building Trades TDI8515/8516/8517 • Carpentry TDI8601/8602/8603 • Cabinetmaking TDI8604/8605/8606 • Electricity and Cabling TDI8533/8534/8535 • Masonry TDI8512/8513/8514 • Plumbing TDI8551/8552/8553
Construction Masonry—Blocklaying Assessment Occupational competency assessment of skills and knowledge covered in an instructional program in masonry-blocklaying	Pass the NOCTI knowledge-based exam (2025) consisting of 187 test items. Test includes hand and power tools, safety, materials and methods, blueprints and specifications, masonry layout and applications, fireplaces and chimneys, masonry structure maintenance, scaffolding, trade appreciation and human relations, arches, steps, patios and pattern bonds and specialty area of blocklaying.	National Occupational Competency Testing Institute (NOCTI)	Masonry TDI8512/8513/8514
Construction Masonry—Bricklaying Assessment Occupational competency assessment of skills and knowledge covered in an instructional program in masonry-bricklaying	Pass the NOCTI knowledge-based exam (2125) consisting of 187 test items. Test includes hand and power tools, safety, materials and methods, blueprints and specifications, masonry layout and applications, fireplaces and chimneys, masonry structure maintenance, scaffolding, trade appreciation and human relations, arches, steps, patios and pattern bonds and specialty area of bricklaying.	National Occupational Competency Testing Institute (NOCTI)	Masonry TDI8512/8513/8514

Title/Description	How To Earn It	Provider	Preparatory Courses
Consumer Electronics Certification (CEC) Certification of knowledge and skill for consumer electronics service technicians in operations, servicing, and repair of consumer electronics products	<ul style="list-style-type: none"> • Pass the ETA Associate Certified Electronics Technician (ACET) core exam as prerequisite. • Pass exam for this specialty (one of several journey-level specialty options) that focuses on the operation and mechanics of TV, radio, VCR, and other consumer electronics products; TV and radio frequencies and their uses; power supplies; video and audio circuitry; and assembly and disassembly of products. 	Electronics Technicians Association, International (ETA)	Electronics Technology TDI8536/8536/8537
Copper Based Cabling Certification A certification for technicians capable of fabricating, installing, troubleshooting, and maintaining copper cable infrastructure for high speed data services, voice, video, and security information systems. Instructor must be RBT System certified before students can receive certification.	<ul style="list-style-type: none"> • Complete an instructional unit consisting of an RBT Copper Based Network Cabling Certification module. • Pass an examination covering the following areas: safety, hardware, twisted pair cabling and coaxial cabling, cable testing, cabling standards, network cabling installation, and residential and voice cabling. 	RBT Systems, Inc.	Electricity and Cabling TDI 8533/8534/8535
Cosmetology Virginia state license to practice the care and styling of human hair, wigs, and hairpieces	<ul style="list-style-type: none"> • Complete the training required by the licensing board as defined in the Code of Virginia. • Pass the written and performance elements of Virginia licensing examination. 	Virginia Board of Cosmetology (Department of Professional & Occupational Regulations)	Cosmetology TDI 8527/8528/8529
Customer Support Specialist Certification* Certification of knowledge of customer service, skills required, and readiness to work in the support center industry. A candidate who passes the certification exam is expected to understand the role of the support center professional, best practices for communications, customer service, teamwork, ethics, support center processes, and terminology.	Pass a one-hour, 40-question exam covering the following areas: customer support profession, communications, customer service, problem solving, teamwork, ethics, technical processes, and technology & infrastructure.	Help Desk Institute	Choose one of the following <ul style="list-style-type: none"> • Computer Network Software Operations BUS6650 • Advanced Computer Network Software Operations TDI6651
Damage Analysis and Estimating Certification (ASE) A certification program to identify and recognize those estimators who possess knowledge of the skills required to properly analyze and estimate automotive collision damage	<ul style="list-style-type: none"> • Pass the ASE Damage Analysis and Estimating Test in the Collision Repair Test series, which identify and recognize collision repair technicians and refinishers. • Present proof of two years of relevant work experience that must be related to damage analysis and estimating, not hands-on collision repair. • May substitute two years of formal training for one year of work experience. 	National Institute for Automotive Service Excellence (ASE)	Automotive Body Technology—Certified TDI8676/8677/8678

Title/Description	How To Earn It	Provider	Preparatory Courses
Dental Assisting Assessment Occupational competency assessment of skills and knowledge covered in a dental assisting instructional program.	Pass the NOCTI knowledge-based exam (2026) consisting of 183 test items. Test includes communication, infection control and hazards management, assisting with clinical procedures, performing diagnostic measures and performing clerical functions.	National Occupational Competency Testing Institute (NOCTI)	Dental Assistant HMS8329
Drafter Certification A certification that allows drafters to demonstrate drafting concepts and nationally recognized standards and practices. The certification exam does not require specific knowledge of design and does not cover software specific computer aided drafting (CAD).			
Early Childhood Care & Education Assessment Occupational competency assessment of skills and knowledge related to instruction in the early childhood care and education area	Pass the NOCTI knowledge-based exam (2016) consisting of 193 test items. Test includes program management, health and safety, intellectual (cognitive) development. Physical development, social and emotional development, positive adult/child relationships and guidance, positive relationships with families, professionalism, language development and communication, creativity, culturally relevant care and education, observation and documentation of learning, inclusion of children with special needs, and curriculum planning.	National Occupational Competency Testing Institute (NOCTI)	Early Childhood Education FCS8285/8286
Electrical Certification Certification for the HVAC technician who installs, services, troubleshoots, and repairs a variety of electrical circuits and components in today's HVAC systems. Because the vast majority of service calls involve electrical repairs, HVAC Excellence designates Electrical Certification the prerequisite for all other certifications in its program. Other certifications may contain questions that are electrical in nature, but are specific to that type of equipment.	Pass a written exam focusing on circuit fundamentals, electrical materials, magnetism, circuit protection, automatic controls components and applications, troubleshooting basic controls, types of electric motors, application of motors, motor controls, and troubleshooting electric motors.		

Title/Description	How To Earn It	Provider	Preparatory Courses
Electric Heat Certification Certification for a technician who services electric heat systems or heat pump systems. It demonstrates competence in all aspects of service and troubleshooting electric heat systems. Electric heat is commonly used as a supplemental heat supply for heat pump systems, hence, it is an excellent supporting certification. Electrical Certification is prerequisite to the Electric Heat exam.	Pass a written exam focusing on the following: principles of electric resistance heating, central forced air electric furnaces, thermostats, controlling multiple stages, contractors for electric furnaces, wiring diagrams, fan motor circuits, and airflow.	HVAC Excellence	Heating, Ventilation, Air Conditioning, and Refrigeration TDI 8503/8504/8505
Electrical, Level I Certification Certification of knowledge and skills defined as Level 1 competency in the residential and commercial/industrial electrical trade area. The certification exam will be based upon the NCCER <i>Contren Learning Series</i> standardized curriculum.	Pass an exam that covers the following: electrical safety; hand bending; fasteners and anchors; electrical theory one; electrical theory two; electrical test equipment; introduction to the national electrical code; raceways, boxes, and fittings; conductors; introduction to electrical blueprints; wiring: commercial and industrial; wiring: residential.	National Center for Construction Education & Research (NCCER)	Choose one of the following: <ul style="list-style-type: none"> Electricity and Cabling TDI8533/8534/8536 Building Trades TDI8515/8516/8517
Emergency Medical Technician Certification for emergency medical technician (EMT) or first responder	Pass the written and practical elements of a test focusing on emergency treatment of victims of accident, injury, or illness.	Department of Health, Office of Emergency Medical Services	Emergency Medical Technology HMS8333/8334
EPA Technician Certification (Exams: Core, I, II, or III) Certification that is required by Section 608 of the Clean Air Act for anyone who maintains, services, repairs, or disposes of appliances which contain refrigerants with CFCs or HCFCs. Certification must be administered by an EPA-approved testing organization (e.g., Air Conditioning and Refrigeration Institute—ARI).	Pass testing required to obtain the mandatory EPA Technician Certification. Includes a complete review of the final EPA regulations implementing Section 608 of Clean Air Act. Recovery, recycling, reclamation, and proper handling of refrigerants and other information needed.	Environmental Protection Agency (Authorized Testing Entity)	Heating, Ventilation, Air Conditioning, and Refrigeration TDI8503/8504/8505
Fiber Optic Network Cabling Certification A certification for technicians capable of fabricating, installing, troubleshooting, and maintaining fiber optic cable infrastructure for high speed data services (broadband, LAN, gigabit ethernet, VoIP, xDSL and ATM), voice, video, and security information systems. Instructor must be RBT System-certified before students can receive certification.	<ul style="list-style-type: none"> Complete an instructional unit consisting of an RBT Fiber Optic Network Cabling Certification module. Pass an examination covering the following areas: fiber optic fundamentals, history of fiber optics, safety, fiber optic tools, fiber optic concepts, cable assemblies, cabling system design, cabling system installation, connecting methods and devices, connecting hardware and outlets, testing, troubleshooting, and standards. 	RBT Systems, Inc.	Electricity and Cabling TDI8533/8534/8535

Title/Description	How To Earn It	Provider	Preparatory Courses
Fiber Optics Installer Certification Entry-level certification for fiber optics installers. Program establishes and benchmarks the basic knowledge and skills needed to install fiber optics communications cabling safely and competently.	<ul style="list-style-type: none"> Attend an ETA-approved Fiber Optics Installer School (or program). Successfully complete a hands-on demonstration of splicing and connectorization ability as it applies to fiber optics cable. Pass written FOIC certification examination. 	Electronics Technicians Association, International (ETA)	Electricity and Cabling TDI8533/8534/8535
Food Production, Management, and Services Assessment Occupational competency assessment of skills and knowledge related to basic culinary arts instruction	Pass the NOCTI knowledge-based exam (2036) consisting of 185 test items. Test includes recipes; large and small equipment; sanitation and safety; preparation of cold food, vegetables, starches and proteins, bakery, desserts, pastries, stocks, sauces, soups, meats, poultry, seafood, and breakfast; receiving and storage; nutritional values; customer service and management; and employment skills.	National Occupational Competency Testing Institute (NOCTI)	Choose one of the following: <ul style="list-style-type: none"> Culinary Arts II FCS8276 Culinary Arts TDI8521/8522/8523
Forestry Products & Processing Assessment Occupational competency assessment of skills and knowledge covered in courses such as Introduction to Natural Resources and Forestry, Wildlife, and Soil Management	Pass the NOCTI knowledge-based exam (2037) consisting of 157 test items. Test includes general safety, logging/harvesting, tree identification, forest protection, silvaculture, forest management, business management, wildlife, surveying, chain saw, sawmilling, diesel—hydraulics, employability skills, forest ecology, and timber cruising.	National Occupational Competency Testing Institute (NOCTI)	Choose one of the following: <ul style="list-style-type: none"> Introduction to Natural Resources ANR8040 Forestry, Wildlife, and Soil Management ANR8042
Fundamental Concepts of Business and Marketing Certificate Certificate awarded for competency in business concepts and skills (marketing emphasis) based on business-derived standards and for knowledge of specific business/marketing functions (e.g., selling or industries such as retail or hospitality)	Pass a knowledge-based exam consisting of 100 multiple-choice test items. Test includes business administration, communications, distribution, economics, financing, marketing-information management, product management, professional development, promotion, and selling.	ASK Institute (DECA/MarkED)	Choose one of the following <ul style="list-style-type: none"> Marketing MKT8120/8121 Fashion Marketing MKT8140/8141
Gas Heat Certification Gas Heat Certification indicates that a technician possesses an in-depth knowledge of all types of gas heat units and their control systems. Any technician who installs, services, or maintains gas heat systems should be certified. Electrical Certification is prerequisite to the Gas Heat exam.	Pass a written exam focusing on the following: types of furnaces, gas fuels (natural gas, LP gas), combustion, gas valve, automatic combination gas valve, manifold, orifice, burners, pilots, gas furnace wiring diagrams, and troubleshooting techniques.	HVAC Excellence	Heating, Ventilation, Air Conditioning, and Refrigeration TDI8503/8504/8505
Graphic Communications Technology Assessment Occupational competency assessment of skills and knowledge covered in an instructional program for graphics arts, printing, and related digital media.	Pass the NOCTI knowledge-based exam (4042) consisting of 190 test items. Test includes introduction to printing, electronic imaging and copy presentation, image assembly and platemaking, duplicator/press operations, finishing processes, and electronic publishing.	National Occupational Competency Testing Institute (NOCTI)	Graphic Imaging Technology TDI8660/8661/8662

Title/Description	How To Earn It	Provider	Preparatory Courses
Graymark Cable Installation Certification Certification provided to students who have successfully trained on the Graymark Cabling Tech program as taught by a certified instructor. The Cabling Tech program covers all topics required by the industry standard BICSI Level 1 certification plus cable installation such as phone, cable television, and inside and outside installation cable.	<ul style="list-style-type: none"> Complete the Graymark Cabling Tech program taught by a teacher certified to teach that curriculum. Pass an exit exam related to the Graymark Cabling Tech program competencies. 	Graymark International	Electricity and Cabling TDI8533/8534/8535
Greenhouse Operators Certification Program Certification of skills and knowledge relating to greenhouse production and marketing	Pass a knowledge-based exam.	Southeast Greenhouse Growers Association	Choose one of the following: <ul style="list-style-type: none"> Horticulture Sciences ANR8134 Floral Design I ANR8055 Floral Design II ANR8056 Floriculture II ANR8038 Greenhouse Plant Production and Management ANR8035 Specialty Horticulture Arts ANR8037
Heat Pump Certification Certification of competence in all areas of service and troubleshooting air-to-air heat pump systems. Any technician responsible for the installation, service and maintenance of air to air heat pump systems should be Heat Pump Certified. Electrical and Air Conditioning Certifications are prerequisites for this test.	Pass a written exam focusing on the following: theory, operation and components of a reverse cycle heat pump, four-way valves, heat sources for heat pumps, auxiliary heat for heat pumps, heat pump efficiency ratings, co-efficiency of performance, control sequences, maintenance procedures, and safety.	HVAC Excellence	Heating, Ventilation, Air Conditioning, and Refrigeration 8503/8504/8505
Horticulture—Floriculture Assessment Occupational competency assessment of skills and knowledge covered in basic floriculture instruction	Pass the NOCTI knowledge-based exam (2049) consisting of 135 test items. Test includes general knowledge, pest management, fundamentals of irrigation, basic nursery/greenhouse skills, horticulture retailing, greenhouse/floriculture, floral industry, and interiorscaping.	National Occupational Competency Testing Institute (NOCTI)	Choose one of the following: <ul style="list-style-type: none"> Horticulture Sciences ANR8034 Floriculture ANR8038
Horticulture—Landscaping Assessment Occupational competency assessment of skills and knowledge covered in basic landscaping instruction	Pass the NOCTI knowledge-based exam (2149) consisting of 131 test items. Test includes general knowledge, pest management, fundamentals of irrigation, basic nursery/greenhouse skills, horticulture retail, landscape construction, landscape maintenance, golf course maintenance, and arboriculture.	National Occupational Competency Testing Institute (NOCTI)	Choose one of the following: <ul style="list-style-type: none"> Horticulture Sciences ANR8034 Landscaping ANR8036

Title/Description	How To Earn It	Provider	Preparatory Courses
Horticulture—Olericulture Assessment Occupational competency assessment of skills and knowledge covered in basic greenhouse plant production and management as relates to fruits and vegetables	Pass the NOCTI knowledge-based exam (2249) consisting of 124 test items. Test includes general knowledge, pest management, fundamentals of irrigation, basic nursery/greenhouse skills, horticulture retailing, and fruits and vegetables.	National Occupational Competency Testing Institute (NOCTI)	Choose one of the following: <ul style="list-style-type: none"> Horticulture Sciences ANR8034 Greenhouse Plant Production and Management ANR8037
Hospitality Management—Food and Beverage Option Assessment Occupational competency assessment of skills and knowledge related to hospitality industry management with emphasis on food and beverage operations	Pass the NOCTI knowledge-based exam (1079) consisting of 159 test items. Test includes introduction to hospitality management, guest relations/concierge, understanding hospitality marketing, the marketing department, marketing to organizations, safety on the job, cashier, travel and tourism, restaurant management, food and beverage service, and legal and ethical responsibilities.	National Occupational Competency Testing Institute (NOCTI)	Choose one of the following: <ul style="list-style-type: none"> Advanced Hotel/Motel Marketing MKT8162/8163 Hospitality Services II FCS8203
Hospitality Management—Lodging Option Assessment Occupational competency assessment of skills and knowledge related to hospitality industry management with emphasis on lodging operations	Pass the NOCTI knowledge-based exam (1080) consisting of 163 test items. Test includes introduction to hospitality management, front office organization, rooms, bedding and rates, the reservation function, guest relations/concierge, understanding hospitality marketing, the marketing department, marketing to organizations, safety on the job, cashier, travel and tourism and legal and ethical responsibilities.	National Occupational Competency Testing Institute (NOCTI)	Choose one of the following: <ul style="list-style-type: none"> Advanced Hotel/Motel Marketing MKT8162/ 8163 Hospitality Services II FCS8203
Hospitality Skills Certification—Front Desk Agents Entry-level certification for hotel/motel front desk agents	<ul style="list-style-type: none"> Accrue 90 days of on-the-job experience, attaining a satisfactory skill evaluation by the employer.* Pass a written exam that includes operation of front desk computers, fax machines, and telephone systems; all phases of guest check-in; responses to guest requests and service problems; sales techniques; and report preparation.* <p>*Secondary students can take the curriculum-related exit exam before graduation to qualify for verified credit.</p>	American Hotel and Lodging Association (AH&LA)	Choose one of the following: <ul style="list-style-type: none"> Hotel/Motel Marketing MKT8160/8161 Advanced Hotel/Motel Marketing MKT8162/ 8163

Title/Description	How To Earn It	Provider	Preparatory Courses
Hospitality Skills Certification—Restaurant Servers Entry-level certification for restaurant service staff in the hospitality industry	<ul style="list-style-type: none"> • Accrue 90 days of on-the-job experience before actual certification can be awarded, attaining a satisfactory skill evaluation by the employer.* • Pass a written exam* that includes stocking side stations and preparing service trays, greeting and seating guests, taking food orders, serving meals, handling dissatisfied guests, selling after-dinner items, and performing closing sidework. <p>*Secondary students can take the curriculum-related exit exam before graduation to qualify for verified credit.</p>	American Hotel and Lodging Association (AH&LA)	Choose one of the following: <ul style="list-style-type: none"> • Hospitality Services I FCS8202 • Hospitality Services II FCS8203
Hospitality Skills Certification—Room Attendants Entry-level certification for hotel/motel room attendants	<ul style="list-style-type: none"> • Accrue 90 days of on-the-job experience before actual certification can be awarded, attaining a satisfactory skill evaluation by the employer.* • Pass a written exam* that includes preparing and organizing cart and work areas; performing initial room inspections; cleaning bathrooms and guest rooms; correcting and reporting problems; and completing end-of-shift duties. <p>**Secondary students can take the curriculum-related exit exam before graduation to qualify for verified credit.</p>	American Hotel and Lodging Association (AH&LA)	Choose one of the following: <ul style="list-style-type: none"> • Hospitality Services I FCS8202 • Hospitality Services II FCS8203
HVAC, Level 1 Certification Certification of knowledge and skills defined as Level 1 competency in the heating, ventilation, and air conditioning area. The certification exam will be based upon the NCCER <i>Contren Learning Series</i> standardized curriculum.	Pass an exam that covers basic principles and skills related to the residential and light commercial heating and air conditioning systems.	National Center for Construction Education & Research (NCCER)	Heating, Ventilation, Air Conditioning, and Refrigeration TDI8503/8504/8505
Hydraulics Specialist Certification A certification (3-hour exam) that confirms knowledge in the following areas: fluid power fundamentals, specialized fluid power topics, relay logic, system integration, and electrical control technology. <i>Fluid power</i> is the generic term for the use and application of hydraulic, pneumatic, electronic control, or vacuum technology this is used to help operate equipment.	There are no prerequisite work experience requirements to receive the Hydraulic Specialist Certification. However, the fluid power specialist is expected to know basic principles, concepts, and terms; load and motion analysis; system design, analysis and troubleshooting; component applications; and control systems and control components. In addition, the specialist also is expected to have knowledge of fluids, fluid conductors, and fluid filtration as well as air compression and preparation.	Fluid Power Society	Industrial Maintenance Technology TDI8575/8576/8577

Title/Description	How To Earn It	Provider	Preparatory Courses
IC³ (Internet and Computing Core Certification)* A global, validated, standards-based training and certification program for basic computing and Internet literacy. It provides specific guidelines for the knowledge and skills required for basic use of computer hardware, software, networks, and the Internet.	Pass three individual examinations in the following areas: <ul style="list-style-type: none"> • Computing Fundamentals • Key Applications • Living Online 	Certiport	Choose any 36-week Business and Information Technology course except Keyboarding, Keyboarding Applications, Digital Input Technologies, or Notetaking.
iNet+ Certification* Certification of essential networking and Internet knowledge and skills of entry-level Internet and e-commerce technical professionals who are responsible for participating in the maintenance of Internet, Intranet, and Extranet infrastructure and services as well as the development of Web-based applications	Pass a written exam that requires knowledge in six domain areas: Internet Basics & Clients, Development, Networking, Internet Security, and Business Concepts.	CompTIA	Choose one of the following: <ul style="list-style-type: none"> • Computer Network Software Operations BUS6650 • Advanced Computer Network Software Operations BUS6651 • Desktop Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631
Installer Core Certification (HVAC-NATE) The Core NATE Installer exam is the first certification required in the installer area before a technician chooses a more advanced specialty installation exam for full certification (passing of core exam and specialty area exam).	Pass a 50-question core exam that covers safety, tools, soft skills, principles of heat transfer and total comfort, and electrical questions.	North American Technician Excellence, Inc. (NATE)	Heating, Ventilation, Air Conditioning, and Refrigeration TDI8503/8504/8505
International Computer Driving License (ICDL)* Computer literacy certification stressing proficiency in seven broad areas	Pass individual examinations in the following seven areas: <ul style="list-style-type: none"> • Basic Concepts of IT • Using a Computer and Managing Files • Word Processing • Spreadsheets • Databases • Presentations • Information and Communication 	ICDL US	Choose any 36-week Business and Information Technology course except Keyboarding, Keyboarding Applications, Digital Input Technologies, or Notetaking.
IT Essentials Certificate, Level 1 End-of-course certificate awarded upon successful completion of the curriculum unit, IT Essentials Level 1: PC Hardware and Software, from Cisco Systems. It provides a "stepping stone" preparation to the A+ certification from CompTIA.	Pass one examination covering the following topics: information technology basics, how computers work, assembling a computer, operating systems fundamentals, Windows 9x operating systems, multimedia capabilities, Windows NT/2000/XP operating systems, advanced hardware fundamentals for servers, networking fundamentals, printers and printing, preventive maintenance, troubleshooting PC hardware, and troubleshooting software.	Cisco Systems	Choose one of the following: <ul style="list-style-type: none"> • Computer Network Software Operations BUS6650 • Advanced Computer Network Software Operations BUS6651 • Information Technology Fundamentals BUS6670 • Computer Systems Technology TDI8622/8623/8624

Title/Description	How To Earn It	Provider	Preparatory Courses
IT Essentials Certificate, Level 2 End-of-course certificate awarded upon successful completion of the curriculum unit, IT Essentials Level 2: Network Operating Systems, from Cisco Systems. It provides a stepping stone to the certifications such as Network+, Server+, and Linux+ from CompTIA.	Pass one examination covering the following topics: operating system fundamentals, introduction to networking, physical components of a network, TCP/IP networking, overview of network services, introduction to network operating systems, installation and boot process overview, Windows 2000 Professional, Linux installation procedures, Linux, advanced NOS administration, installing and maintaining hardware in a Linux environment, troubleshooting the operating system, and network security.	Cisco Systems	Choose one of the following: <ul style="list-style-type: none"> • Computer Network Software Operations BUS6650 • Advanced Computer Network Software Operations BUS6651
Java Programming Certificate End-of-course certificate awarded upon successful completion of the course, Fundamentals of Java Programming, from Cisco Systems. It provides a stepping stone to the Sun Certified Programmer for JAVA certification.	Pass an end-of-course online exam which tests the following: conceptual understanding of object oriented programming, Java languages, object-oriented technologies to solve business problems, language fundamentals and Java language API, and creating classes, objects, and applications.	Cisco Systems	Choose one of the following: <ul style="list-style-type: none"> • Advanced Database Design and Management BUS6661 • Advanced Programming BUS6641
Law Enforcement Assessment Occupational competency assessment of skills and knowledge covered in a program on introductory criminal justice/law enforcement	Pass the NOCTI knowledge-based exam (1081) consisting of 197 test items. Test includes orientation and safety, criminal laws and procedures, arrest and search procedures, investigation/crime scene process, first aid/CPR, basic rights and responsibilities, personal health, hazardous materials/general safety, police concepts and skills, and corrections concepts and skills.	National Occupational Competency Testing Institute (NOCTI)	Criminal Justice TDI8702/8703/8704
Light Commercial Heating & Air Conditioning Industry Competency Exam (ICE) offered by ARI. It measures industry-wide standards of basic competency for entry-level (one-year or less) technicians in the area of light commercial heating and air conditioning (6- to 20-ton systems).	Pass an exam that contains 100 multiple-choice questions covering the ARI curriculum guide for Light Commercial Heating & Air Conditioning.	Air Conditioning and Refrigeration Institute (ARI)	Heating, Ventilation, Air Conditioning, and Refrigeration TDI8503/8504/8505
Linux+ Certification Program Benchmark of basic knowledge and skills pertaining to the Linux computer operating system	Pass one examination consisting of approximately 95 multiple-choice questions, which tests basic knowledge of the work environment and typical job tasks and problems encountered by an entry-level Linux professional.	CompTIA	Choose one of the following: <ul style="list-style-type: none"> • Computer Network Software Operations BUS6650 • Advanced Computer Network Software Operations BUS6651

Title/Description	How To Earn It	Provider	Preparatory Courses
Lodging Management Program Certification, Level 1 Certification indicating that student has studied and experienced career opportunities in the lodging and foodservice industry, has developed skills needed in the operation of a lodging property, and has passed the Level 1 exam	Pass an exam after completing Level 1 of the AH&LA Lodging Management Program. Exam items include overview of lodging management, the front office, and housekeeping.	American Hotel and Lodging Association (AH&LA)	Choose one of the following: <ul style="list-style-type: none"> Hotel/Motel Marketing MKT8160/8161 Hospitality Services II FCS8202
Lodging Management Program Certification, Level 2 Certification indicating that student has studied and experienced career opportunities in the lodging and foodservice industry, has developed skills needed in the operation of a lodging property, and has passed the Level 2 exam	Pass an exam after completing Level 2 of the AH&LA Lodging Management Program. Exam items include leadership and management, marketing and sales, food and beverage service.	American Hotel and Lodging Association (AH&LA)	Choose one of the following: <ul style="list-style-type: none"> Advanced Hotel/Motel Marketing MKT8162/8163 Hospitality Services II FCS8203
Machining Skills—Level 1 Certification of essential knowledge and skills for entry-level machinists in any one of seven distinct Machining Level 1 skill areas	Each of seven credentials that can be earned requires successful completion of a performance requirement and a related theory exam. Each credential involves a different written exam with the exception of Turning; the Turning exam needs to be taken only once for both Turning credentials. In summary, there are seven performance requirements and six written exams at Machining Level I.	National Institute for Metalworking Skills, Inc. (NIMS)	Precision Machining Technology TDI8539/8540/8541
Macromedia Certified Professional Certification of knowledge and skill in a specific Macromedia software product. Macromedia-certified developers and designers are considered the elite of Web developers. This certification program is generally considered an advanced level industry certification. Individual assessments are available in the following areas: Certified Macromedia Flash Designer, Certified ColdFusion Developer, Certified Macromedia Flash Developer, Certified Dreamweaver Developer.	Pass an exam that demonstrates proficiency in one of the following Macromedia software products: Dreamweaver MX Certification exam (65 multiple-choice questions/70-minute closed book), Certified Macromedia Flash MX Designer (67 multiple-choice questions/70-minute closed book), Certified Macromedia Flash MX Developer (65 multiple-choice questions/70-minute closed book), and Certified ColdFusion Developer (65 multiple-choice questions/70-minute closed book).	Macromedia	Choose one of the following: <ul style="list-style-type: none"> Desktop/Multimedia Presentations BUS6630 Advanced Desktop/Multimedia Presentations BUS6631 Graphic Imaging Technology TDI8660/8661/8662
Masonry, Level 1 Certification Certification of knowledge and skills defined as Level 1 competency in the masonry trade area. The certification exam is based upon the NCCER <i>Contren Learning Series</i> standardized curriculum.	Pass an exam that covers the following: introduction to masonry, safety requirements, tools and equipment; mathematics, drawings and specifications; mortar, masonry units, and installation techniques.	National Center for Construction Education & Research (NCCER)	Choose one of the following: <ul style="list-style-type: none"> Building Trades TDI8515/8516/8517 Masonry TDI 8512/8513/8514

Title/Description	How To Earn It	Provider	Preparatory Courses
Master CIW Administrator*** Certification for Web professionals who manage, develop security for, and tune corporate Internet and intranet infrastructure; monitor Web, FTP, news and mail servers; and configure and deploy e-business solutions servers	Pass a series of three knowledge-based exams (based on specific course material) to complete the Master CIW Administrator Certification Track. <ul style="list-style-type: none"> • Server Administrator • Internetworking Professional • Security Professional 	ProsoftTraining	Instructional competencies and materials obtained from specific vendors may be used to prepare students for this certification. The course should be reported as Advanced Information Technology I BUS6680 or Advanced Information Technology II BUS6681.
Master CIW Designer*** Certification for Web professionals who implement and maintain hypertext-based Web sites using authoring and scripting languages, create Web content, use Web management and digital media tools, and apply human-factor principles to design	Pass a series of two knowledge-based exams to complete the Master CIW Designer Certification Track: <ul style="list-style-type: none"> • Site Designer • E-Commerce Designer 	ProsoftTraining	Instructional competencies and materials obtained from specific vendors may be used to prepare students for this certification. The course should be reported as Advanced Information Technology I BUS6680 or Advanced Information Technology II BUS6681.
Master CIW Enterprise Developer*** A certification series that denotes high-level skills in the design, development, and administration of enterprise-level Web sites with sophisticated database connectivity	Pass a series of six knowledge-based exams to complete the Master CIW Enterprise Developer Track: <ul style="list-style-type: none"> • Web Languages • Application Developer • Java Programming • Object-Oriented Analysis & Design • Database Specialist • Enterprise Specialist 	ProsoftTraining	Instructional competencies and materials obtained from specific vendors may be used to prepare students for this certification. The course should be reported as Advanced Information Technology I BUS6680 or Advanced Information Technology II BUS6681.
Master CIW Web Site Manager*** A certification for Web professionals who will develop and manage Web sites and services for small- to medium-sized businesses that do not typically employ large IT staffs	Pass a series of three knowledge-based exams to complete the Master CIW Web Site Manager Certification Track: <ul style="list-style-type: none"> • Server Administrator • Web Languages • Site Designer 	ProsoftTraining	Instructional competencies and materials obtained from specific vendors may be used to prepare students for this certification. The course should be reported as Advanced Information Technology I BUS6680 or Advanced Information Technology II BUS6681.
Medical Assisting Assessment Occupational competency assessment of skills and knowledge covered in a medical assisting instructional program.	Pass the NOCTI knowledge-based exam (3055) consisting of 198 test items. Test includes general office procedures, general laboratory procedures and diagnostics, clinical procedures, patient instruction and foundations of healthcare.	National Occupational Competency Testing Institute (NOCTI)	Medical Assistant II HMS8346
Metalforming Skills—Level 1 Certification of essential knowledge and skills for entry-level sheet metal technician	Metalforming Skills—Level I deals with basic knowledge and skills essential to metal stamping operations and includes part inspection, an introduction to SPC, engineering or blueprint reading, safety issues, material handling, maintenance, hazardous waste handling, and others. One credential can be earned at this level.	National Institute for Metalworking Skills, Inc. (NIMS)	Sheet Metal TDI8663/8664/8665

Title/Description	How To Earn It	Provider	Preparatory Courses
Microsoft Certified Applications Developer (MCAD)** Credential for professionals who develop and maintain department-level applications, components, Web or desktop clients, or back office services.	Pass two core exams: <ul style="list-style-type: none"> • One exam must focus on either Application Development or Windows Application Development in an area of choice. • Other exam focuses on core Web services and server components. Also, pass one elective exam.	Microsoft	Instructional competencies and materials obtained from specific vendors may be used to prepare students for this certification. The course should be reported as Advanced Information Technology I BUS6680 or Advanced Information Technology II BUS6681.
Microsoft Certified Professional (any Microsoft Professional Certification exam)* A measure of technical proficiency and expertise indicated by passing one of Microsoft's industry certification exams, leading toward a more advanced Microsoft certification specialty program.	Pass one current Microsoft certification exam that provides a valid and reliable measure of technical proficiency and expertise (a current exam is any that has not been retired).	Microsoft	Choose one of the following: <ul style="list-style-type: none"> • Computer Network Software Operations BUS6650 • Advanced Computer Network Software Operations BUS6651 • Programming BUS6640 • Advanced Programming BUS6641
Microsoft Certified Professional (MCP): Installing, Configuring, and Administering Microsoft Windows 2000 Professional* Test of the knowledge needed to install, support, and troubleshoot Windows 2000 Professional as a desktop operating system in any network environment. Upon passing, the candidate is considered a Microsoft Certified Professional (MCP). This is the first step toward more advanced career certifications.	Pass one exam, Installing, Configuring, and Administering Microsoft Windows 2000 Professional (70-210).	Microsoft	Choose one of the following: <ul style="list-style-type: none"> • Computer Network Software Operations BUS6650 • Advanced Computer Network Software Operations BUS6651
Microsoft Certified Professional (MCP): Installing, Configuring, and Administering Microsoft Windows 2000 Server* Test of the knowledge needed to support and troubleshoot Windows 2000 Server. Upon passing, the candidate is considered a Microsoft Certified Professional (MCP). This is the first step toward more advanced career certifications.	Pass the Installing, Configuring, and Administering Microsoft Windows 2000 Server exam (70-215).	Microsoft	Choose one of the following: <ul style="list-style-type: none"> • Computer Network Software Operations BUS6650 • Advanced Computer Network Software Operations BUS6651
Microsoft Certified Professional: Visual Basic 6.0 Certification Component (MCSD)* Measure of knowledge of programming using Visual Basic 6.0. Upon passing, a candidate is considered a Microsoft Certified Professional (MCP). This is the first step toward more advanced career certifications.	Pass the Designing and Implementing Desktop Applications with Microsoft® Visual Basic 6.0 exam (70-176).	Microsoft	Choose one of the following: <ul style="list-style-type: none"> • Programming BUS6640 • Advanced Programming BUS6641

Title/Description	How To Earn It	Provider	Preparatory Courses
Microsoft Certified Professional: Visual C++ 6.0 Certification Component (MCSD)* Measure of knowledge of programming using Visual C++ 6.0. Upon passing, a candidate is considered a Microsoft Certified Professional (MCP). This is the first step toward more advanced career certifications.	Pass the Designing and Implementing Desktop Applications with Microsoft Visual C++ 6.0 exam (70-016).	Microsoft	Choose one of the following: <ul style="list-style-type: none"> • Programming BUS6640 • Advanced Programming BUS6641
Microsoft Certified Systems Administrator (MCSA)*** Credential related to skills required to implement, manage, and troubleshoot the ongoing needs of Microsoft Windows 2000--based operating environments, including Windows .Net Server.	Pass three core exams and one elective exam. <ul style="list-style-type: none"> • Core exams include topics such as Installing, Configuring and Administering Microsoft Windows 2000 Professional (or Windows XP Professional)—Desktop, Server, and Network environment. • ComTIA's A+ and Network+ or A+ and Server+ may be substituted for the required MCSA elective exam. 	Microsoft	Instructional competencies and materials obtained from specific vendors may be used to prepare students for this certification. The course should be reported as Advanced Information Technology I BUS6680 or Advanced Information Technology II BUS6681.
Microsoft Certified Systems Engineer (MCSE)*** Certification of knowledge and skills for information technology professionals who plan, implement, and/or support business solutions using Microsoft Windows Operating Systems and BackOffice applications software.	MCSE candidates on the Microsoft Windows 2000 Track are required to pass five core exams and two elective exams.	Microsoft	Instructional competencies and materials obtained from specific vendors may be used to prepare students for this certification. The course should be reported as Advanced Information Technology I BUS6680 or Advanced Information Technology II BUS6681.

Title/Description	How To Earn It	Provider	Preparatory Courses
Microsoft Office Specialist (MOS)* A globally recognized standard for demonstrating desktop skills with the Microsoft Office suite of business productivity applications. Office Suites include the Office XP, 2000, and 97 versions. Certifications are available at three levels: core, expert, and master.	Two unique Microsoft Office Specialist exams at or above the "core" level must be passed to qualify for student-selected verified credit.	Microsoft	Choose one of the following: <ul style="list-style-type: none"> • Computer Applications BUS6611 • Computer Information Systems BUS6612 • Advanced Computer Information Systems BUS6613 • Computer Network Software Operations BUS6650 • Advanced Computer Network Software Operations BUS6651 • Database Design and Management BUS6660 • Advanced Database Design and Management BUS6661 • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631 • Digital Input Technologies BUS6161 • Information Technology Fundamentals BUS6670 • International Baccalaureate Information Technology in a Global Society IB6613 • Keyboarding Applications BUS6152 • Legal Systems Administration BUS6735 • Medical Systems Administration BUS6730 • Office Administration BUS66216622 • Office Specialist BUS6640/6641/6642 • Word Processing BUS6625
Nail Technician Virginia state license to practice nail care	<ul style="list-style-type: none"> • Complete the training required by the licensing board as defined in the Code of Virginia. • Pass the written and performance elements of a Virginia licensing examination. 	Virginia Board of Cosmetology (Department of Professional & Occupational Regulations)	Nail Technician TDI8692/8693

Title/Description	How To Earn It	Provider	Preparatory Courses
National Professional Certification in Customer Service	Pass an Internet-delivered, knowledge-based exam made up of real-life customer service situations, some presented through video and audio, with questions presenting possible courses of action.	Sales & Service Voluntary Partnership (S&SVP)	Choose one of the following: <ul style="list-style-type: none"> Marketing MKT8120/8121 Advanced Marketing MKT8130/8131
Certification that documents knowledge and skills in the industry-identified area of Customer Service Skill Standards.			
Network+ Certification*	Pass a written exam requiring knowledge of networking technology and networking application practices.	CompTIA	Advanced Computer Network Software Operations BUS6651
Certification that candidates have knowledge of the layers of the OSI model, can describe the features and functions of network components and have skills needed to install, configure, and troubleshoot basic networking hardware peripherals and protocols.			
NRDA Certification (Dental Assisting)	<ul style="list-style-type: none"> Complete a state-approved dental assisting program. Pass a knowledge-based examination pertaining to common requirements and job functions of a dental assistant. 	National Allied Health Registry/ National Association for Health Professionals	Dental Assistant HMS8328/8329
One of several certifications in the health sciences field offered by the National Association for Health Professionals.			
NRDA Certification (Medical Assisting)	<ul style="list-style-type: none"> Complete a state-approved medical assisting program. Pass a knowledge-based examination pertaining to common requirements and job functions of a medical assistant. 	National Allied Health Registry/ National Association for Health Professionals	Medical Assistant HMS8345/8346
One of several certifications in the health sciences field offered by the National Association for Health Professionals			
Nurse Aide	<ul style="list-style-type: none"> Complete an approved nurse aide program. Pass a practical and written test focusing on basic emergency procedures, vital signs, intake and output, bathing and oral hygiene, care of the skin, communication and interpersonal skills, infection control, patients' rights, restorative therapy, and the unique needs and behaviors of the cognitively impaired patient. 	Virginia Board of Nursing	Choose one of the following: <ul style="list-style-type: none"> Health Assistant II HMS8331/8332 Nursing Assistant II HMS8360/8362 Practical Nursing II HMS8357/8358
Certification for individuals who perform patient care in support of registered professional nurses and other health care personnel			
Oil Heat Certification	Pass a written exam focusing on the following: fuel oils, combustion products and byproducts, combustion efficiency, gun-type oil burners, nozzles, fuel oil pumps, oil burner components, ignition system, basic service procedures, and preventative maintenance.	HVAC Excellence	Heating, Ventilation, Air Conditioning, and Refrigeration TDI8503/8504/8505
Technicians responsible for service or maintenance of oil heating systems should be certified in this area. Oil heat requires more consistent regular service than any other heat system. Electrical Certification is prerequisite to the Oil Heat exam.			
Oracle Certified Professional* (any Oracle Professional Certification Exam)	Pass one current Oracle professional certification exam that provides a valid and reliable measure of technical proficiency and expertise in Oracle database design, development, operation, and maintenance. (A current exam is any that has not been retired.)	Oracle Corporation	Choose one of the following: <ul style="list-style-type: none"> Database Design and Management BUS6660 Advanced Database Design and Management (Oracle Academy) BUS6661
A measure of technical proficiency and expertise indicated by passing one of the Oracle industry certification exams, leading toward a more advanced Oracle certification specialty program.			

Title/Description	How To Earn It	Provider	Preparatory Courses
Outdoor Power Equipment Certifications A certification program that includes six tests (each one a certification), ranging from small outdoor power engines to compact diesel engines and generators.	Pass any one of the following tests: 2-stroke engine, 4-stroke engine, electrical, drivelines, compact diesel, or generator to receive one of six Outdoor Power Equipment certifications.	Equipment and Engine Training Council (EETC)	Choose one of the following: <ul style="list-style-type: none"> Agricultural Power & Equipment ANR8016 Small Engine Repair ANR8082 Small Engine Repair TDI8725/8726/8727
Parts Specialist—Automotive or Medium/Heavy Truck (ASE) Certification of knowledge, skills, and professionalism of parts specialists	ASE tests and issues a certification for each of the following three areas: medium/heavy truck parts specialist, automobile parts specialist, and medium/heavy truck aftermarket parts specialist	National Institute for Automotive Service Excellence	Automotive Service Technology—Certified TDI8506/8507/8508
Plumbing Assessment Occupational competency assessment of skills and knowledge covered in an instructional program in the plumbing trade	Pass the NOCTI knowledge-based exam (2061) consisting of 150 test items. Test includes general practices, drainage, venting, joining pipe, installing fixtures and fittings, water supply lines, inspection/safety, and plumbing math.	National Occupational Competency Testing Institute (NOCTI)	Plumbing TDI8551/8552/8553
Plumbing, Level 1 Certification Certification of knowledge and skills defined as Level 1 competency in the plumbing trade area. The certification exam is based upon the NCCER <i>Contren Learning Series</i> standardized curriculum.	Pass an exam that covers the following: introduction to the plumbing trade; plumbing tools; introduction to plumbing math; introduction to plumbing drawings; plastic pipe and fittings; copper pipe and fittings; cast-iron pipe and fittings; carbon steel pipe and fittings; fixtures and faucets; introduction to drain, waste, and vent (DWV) systems; and introduction to water distribution systems.	National Center for Construction Education & Research (NCCER)	Choose one of the following: <ul style="list-style-type: none"> Building Trades TDI8515/8516/8517 Plumbing TDI8551/8552/8553
Pneumatic Technician Certification of fluid power knowledge related to basic principles, concepts, and terms; load and motion analysis; system design, analysis and troubleshooting; component applications; and control systems and control components. In addition, the specialist also is expected to have knowledge of fluids, fluid conductors, and fluid filtration as well as air compression and preparation. <i>Fluid power</i> is the generic term for the use and application of hydraulic, pneumatic, electronic control, or vacuum technology used to help operate equipment.	Pass the Pneumatic Specialist Certification Test, a knowledge-based, 3-hour examination that includes 50 multiple choice questions. The examination includes questions relating to fluid power fundamentals, specialized fluid power topics, relay logic, system integration, and electrical control technology.	Fluid Power Society	Industrial Maintenance Technology TDI8575/8576/8577

Title/Description	How To Earn It	Provider	Preparatory Courses
Practical Nursing Assessment Occupational competency assessment of skills and knowledge covered in an instructional program for practical nursing. This assessment is unrelated to the Licensed Practical Nurse (LPN) licensure program.	Pass the NOCTI knowledge-based exam (2062) consisting of 161 test items. Test includes basic communication and employability skills, legal/ethical responsibilities, human growth and development, anatomy and physiology of the human body, patient care skills for all ages, administering medication, principles of infection control, bio-psycho-social support, supervised management functions.	National Occupational Competency Testing Institute (NOCTI)	Practical Nursing II HMS/8358
PrintED Certification (All Exams) A certification program that validates competencies related to PrintED, the industry's national accreditation program for secondary and postsecondary graphic communications programs. The program includes three exams, with a certificate being awarded for each area.	<ul style="list-style-type: none"> Complete an instructional program that has achieved the national PrintED accreditation. Pass one exam (either Introduction to Graphic Communications, Press Operations, or Digital File Preparation) that validates competencies related to the PrintED industry-based curriculum for the graphics communications industry. 	Graphic Arts Education and Research Foundation	Graphic Imaging Technology TDI8660/8661/8662
Production Agriculture Assessment Occupational competency assessment of skills and knowledge covered in typical Agricultural Production Technology and/or Management courses.	Pass the NOCTI knowledge-based exam (1063) consisting of 164 test items. Test includes animal science, plant science, agriculture mechanics, farm management, record keeping, leadership, and employability.	National Occupational Competency Testing Institute (NOCTI)	Choose one of the following: <ul style="list-style-type: none"> Agricultural Production Technology ANR8010 Agricultural Production Management ANR8012
ProStart National Certification of Achievement (Exit Exam) Certification for individuals who prepare for careers in the restaurant and foodservice industry. Indicates successful completion of an instructional program covering fundamentals of food preparation, introduction to the hospitality industry, customer relations, accounting, cost control, communication, marketing, nutrition, food sanitation, and safety.	<ul style="list-style-type: none"> Complete an industry-based ProStart curriculum that includes on-the-job work experience and mentoring in local restaurants. Pass an end-of-program exam. 	Education Foundation of the National Restaurant Association	Choose one of the following: <ul style="list-style-type: none"> Culinary Arts FCS8275/8276 Culinary Arts TDI8521/8522/8523
Real Estate Salesperson Virginia state license to handle purchases and sales of real estate	<ul style="list-style-type: none"> Complete the training required by the licensing board as defined in the Code of Virginia. Pass the written and performance elements of a Virginia licensing examination. 	Virginia Real Estate Board (Department of Professional & Occupational Regulations)	Real Estate Marketing MKT8191

Title/Description	How To Earn It	Provider	Preparatory Courses
Residential Air Conditioning and Heating Certification (ARI) Certification offered by ARI and referred to as one its Industry Competency Exams (ICE). It measures industry-agreed standards of basic competency for entry-level (one-year experience or less) technicians in the area of Residential Air Conditioning and Heating (equipment is 5-ton systems or smaller).	Pass an exam that contains 100 multiple-choice questions covering the ARI curriculum guide for Residential Air Conditioning and Heating.	Air Conditioning and Refrigeration Institute	Heating, Ventilation, Air Conditioning, and Refrigeration TDI8503/8504/8505
Retail Trades Assessment Occupational competency assessment of skills, functions, and knowledge foundations related to marketing and merchandising occupations	Pass the NOCTI knowledge-based exam (2053) consisting of 199 test items. Test includes advertising, electronic marketing, visual merchandise, entrepreneurship, economics, communication, selling, employability skills, related mathematics, marketing/merchandising and human relations/customer service.	National Occupational Competency Testing Institute (NOCTI)	Choose one of the following: <ul style="list-style-type: none"> • Advanced Marketing MKT8130/8131 • Advanced Fashion Marketing MKT8145/8146
SENSE Training Program Certifications (Welding) Certification of knowledge and skills in welding	To earn an AWS SENSE Level I, II, or III certification: <ul style="list-style-type: none"> • Complete the prescribed SENSE training program offered through an AWS-approved participating organization (program). • Pass the required written and performance-based certification examinations. 	American Welding Society	Welding TDI8672/8673/8674
Service Core Certification (HVAC-NATE) First certification required in the service area before a technician chooses a more advanced "specialty service area" exam for an additional certification. A fully certified Service Technician (passing of core exam and specialty area exam) is automatically certified as an Installation Technician without additional testing.	Pass a core service exam that indicates the ability to accomplish the same tasks as an Installation Technician, as well as being able to independently power up and adjust control settings to cycle equipment through all designed-for sequences.	North American Technician Excellence, Inc. (NATE)	Heating, Ventilation, Air Conditioning, and Refrigeration TDI8503/8504/8505
START Certification End-of-course exam that certifies satisfactory completion of the START curriculum related to line level occupations (Guest Service, Rooms Division, Food and Beverage Division) in the hospitality industry. After completing the START curriculum, students may also choose to take other line level certification exams from AH&LA (i.e., Restaurant Server, Room Attendant, Front Desk Agent).	Pass an end-of-course exam that covers specific areas of the hospitality industry. These areas include hospitality orientation, guest services, rooms division, front desk, reservationist, PBX operator, guest room attendant, maintenance worker, laundry attendant, public service cleaner, bell services attendant, and food and beverage division (restaurant server, banquet services, and bus person).	American Hotel and Lodging Association (AH&LA)	Choose one of the following: <ul style="list-style-type: none"> • Hospitality Services I FCS8202 • Hospitality Services II FCS8203

Title/Description	How To Earn It	Provider	Preparatory Courses
Sun Certified Programmer for Java 2 Platform* Certification for programmers experienced in using the basic syntax and structure of the Java programming language. Certification is available for the Java 2 Platform.	Pass the Sun Certified Programmer for Java 2 Platform exam (310-025).	Sun Microsystems	Choose one of the following: <ul style="list-style-type: none"> Advanced Database Design and Management BUS6661 Advanced Programming BUS6641
UNIX Certificate* End-of-course certificate awarded upon successful completion of the course, Fundamentals of UNIX. It provides a stepping stone to various Sun Systems Administrator certifications and the Linux+ certification from CompTIA.	Pass an end-of-course online exam which includes the following: how to use UNIX operating system commands, basic Sun Microsystems' Solaris operating environment commands, introduction to the Common Desktop Environment (CDE), and fundamental command-line features of the Solaris environment (file system navigation, file permissions, the vi text editor, command shells and basic network use).	Cisco Systems	Choose one of the following: <ul style="list-style-type: none"> Computer Network Software Operations BUS6650 Advanced Computer Network Software Operations BUS6651
Voice and Data Cabling Certification End-of-course certificate awarded upon successful completion of the course Fundamentals of Voice and Data Cabling. It provides "stepping stone" preparation to the BICSI Registered Installer, Level I, certification exam.	Pass one end-of-course examination covering the following areas: cabling issues related to data and voice connections; industry and worldwide standards; types of media and cabling; physical and logical networks; signal transmission; documentation, design, and installation issues; and safety issues.	Cisco Systems	Choose one of the following: <ul style="list-style-type: none"> Computer Network Software Operations BUS6650 Advanced Computer Network Software Operations BUS6651 Electricity and Cabling TDI8533/8534/8535
Web Design Certificate* End-of-course certificate awarded upon successful completion of the course Fundamentals of Web Design. It provides a stepping stone to various product certifications in the Adobe Expert program as well as Web design and/or digital media assessments from Brainbench.	Pass an end-of-course online exam that tests the following: Web site production processes; design elements involving layouts, navigation, and interactivity; and Web design exercises using Adobe applications. Web design applications are taught and tested using Adobe Photoshop, Adobe Illustrator, Adobe GoLive, Adobe LiveMotion, and Adobe Premiere.	Cisco Systems	Choose one of the following: <ul style="list-style-type: none"> Desktop/Multimedia Presentations BUS6630 Advanced Desktop/Multimedia Presentations BUS6631
Welding, Level 1 Certification Certification of knowledge and skills defined as Level 1 competency in basic welding. The certification exam will be based upon the NCCER <i>Contren Learning Series</i> standardized curriculum.	Pass an exam that focuses on basic welding principles.	National Center for Construction Education & Research (NCCER)	Welding TDI8672/8673/8674

Title/Description	How To Earn It	Provider	Preparatory Courses
WOW Certified Apprentice Webmaster (CAW)* Certification examination that measures essential competencies for aspiring or practicing Webmasters. The intent is to certify individuals in a body of knowledge that is identified and accepted as the baseline or foundation for a Webmaster.	Pass a 70-question exam in 60 minutes that demonstrates knowledge of the following: Internet basics, HTML, Web graphics, Web multimedia, Web site design, Web site management, Web project management, Web marketing, Web accessibility, and basic legal issues.	World Organization of Webmasters	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631
WOW Certified Web Administrator Apprentice (CWAA)* Certification examination that measures fundamental competencies for aspiring or practicing Web administrators. The intent is to certify individuals in a body of knowledge that is identified and accepted as the baseline or foundation of any Web administrator.	Pass a 70-question exam in 60 minutes that demonstrates knowledge of the following: site administration and maintenance, networking basics, hardware and infrastructure, Web business management, and basic security issues.	World Organization of Webmasters	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631
WOW Certified Web Designer Apprentice (CWDSA)* Certification examination that measures essential competencies for aspiring or practicing Web designers. The intent is to certify individuals in a body of knowledge that is identified and accepted as the baseline or foundation of a Web designer.	Pass a 70-question exam in 60 minutes that demonstrates knowledge of Internet basics, HTML and WYSIWYG editors, Web graphics, Web multimedia, Web site design, Web site management, and basic legal issues.	World Organization of Webmasters	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631
WOW Certified Web Developer Apprentice (CWDVA)* Certification examination that measures fundamental competencies for aspiring or practicing Web developers. The intent is to certify individuals in a body of knowledge that is identified and accepted as the baseline or foundation of any Web developer.	Pass a 70-question exam in 60 minutes that demonstrates basic knowledge of programming, markup, scripting, dynamic Web site technologies, servers, networking, Web security, Web business management, legal issues, and Web accessibility.	World Organization of Webmasters	Choose one of the following: <ul style="list-style-type: none"> • Desktop/Multimedia Presentations BUS6630 • Advanced Desktop/Multimedia Presentations BUS6631